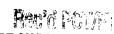
Translation





PCT



18 MAR 2014

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or security 51,							
Applicant's or agent's file reference 664044	FOR FURTHER A	CTION	See Form PCT/IPEA/416				
International application No. International filing		ate (day/month/year)	Priority date (day/month/year)				
PCT/JP2003/012320		003 (26.09.2003)	27 September 2002 (27.09.2002)				
International Patent Classification (IPC) or na C07D 473/18, 473/16, 473/24, 47 35/00, 37/02, 37/08, 43/00	tional classification at	nd IPC					
Applicant SUMITOMO PHARMACEUTICALS COMPANY, LIMITED							
This report is the international prelim Authority under Article 35 and transfer	 This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 						
2. This REPORT consists of a total of	4 sheets,	including this cover sh	neet.				
3. This report is also accompanied by Al	_						
a. (sent to the applicant and t	o the International Bu	reau) a total of	sheets, as follows:				
sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).							
sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.							
b. (sent to the Internationa	il Bureau only) a t	otal of (indicate type	and number of electronic carrier(s))				
b. (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).							
4. This report contains indications relating	ng to the following iter	ns:					
Box No. I Basis of the repo	ort						
Box No. II Priority							
Box No. III Non-establishme	ent of opinion with reg	ard to novelty, inventiv	e step and industrial applicability				
Box No. IV Lack of unity of							
Box No. V Reasoned statem citations and exp	Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement						
Box No. VI Certain documen							
Box No. VII Certain defects in	n the international app	lication					
Box No. VIII Certain observations on the international application							
Date of submission of the demand		Date of completion of t	his report				
26 April 2004 (26.04.2004)		08 Oct	ober 2004 (08.10.2004)				
Name and mailing address of the IPEA/JP		Authorized officer					
Facsimile No.		Telephone No.					

INTERNATIONAL PRELIMANY REPORT ON PATENTABILITY

In ional application No.
PCT/JP2003/012320

Box N	o. I	Basis of the report					
1. Wit	h regard erwise in	to the language, this report is based on the international application in the language in which it was filed, unless adicated under this item.					
	This whic	report is based on translations from the original language into the following language, this language of a translation furnished for the purpose of:					
1		international search (under Rules 12.3 and 23.1(b))					
l	publication of the international application (under Rule 12.4)						
		international preliminary examination (under Rules 55.2 and/or 55.3)					
		, , , , , , , , , , , , , , , , , , ,					
J	are not The in	I to the elements of the international application, this report is based on (replacement sheets which have been the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" annexed to this report): annexed to this report):					
╽╙	the de	scription:					
	pages	, as originally filed/furnished					
ł	pages	received by this Authority on					
l	pages'	received by this Authority on					
	the cla	aims:					
	pages	, as originally filed/furnished					
	pages'	, as amended (together with any statement) under Article 19					
	pages'						
	pages*	received by this Authority on					
$ \sqcup $	the dra	awings:					
Ì	pages	, as originally filed/furnished					
	pages*	Teceived by this Authority on					
	pages*	received by this Authority on					
	a sequ	ence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.					
3.	The an	nendments have resulted in the cancellation of:					
	\Box	the description, pages					
		he claims, Nos.					
	=	he drawings, sheets/figs					
		he sequence listing (specify):					
		any table(s) related to sequence listing (specify):					
		solve to sequence fishing (specify).					
	(Rule 7	port has been established as if (some of) the amendments annexed to this report and listed below had not been since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box 0.2(c)). the description, pages					
		he claims, Nos.					
		ne drawings, sheets/figs					
		ne sequence listing (specify):					
		ny table(s) related to sequence listing (specify):					
* If item	4 appli	es, some or all of those sheets may be marked "superseded."					

ARY REPORT ON PATENTABILITY

International application No.						
	PCT/JP03/12320					

citations and explanations supporting such statement			
1. Statement		· · · · · · · · · · · · · · · · · · ·	
Novelty (N)	Claims	1-46	YES
	Claims		NO
Inventive step (IS)	Claims	5-7, 10, 12, 13, 16-25, 28, 29	YES
	Claims	1-4, 8, 9, 11, 14, 15, 26, 27, 30-46	NO
Industrial applicability (IA)	Claims	1-46	YES
	Claims		NO

- 2. Citations and explanations (Rule 70.7)
- 1. WO 99/28321 A1
- 2. JP 11-193282 A
- 3. EP 1043021 A1
- 4. WO 98/01448 A1

I. Claims 1-4, 8, 9, and 11

Document 1 describes a drug that has the compounds represented by General Formula (I) as its active ingredient. The compounds of Examples 39, 40, 45, and 62, which are concrete compounds of General Formula (I), are equivalent to the compounds of General Formula (I) of this application. Furthermore, page 27, lines 16 to 17, lists a transdermal agent, aerosol agent, etc., as dosage forms of the drug. Therefore, persons skilled in the art can easily formulate the compounds of Examples 39, 40, 45, and 62 as a transdermal agent or aerosol agent.

As a result, based on the description in document 1, the inventions of claims 1-4, 8, 9, and 11 lack an inventive step.

II. Claims 14, 15, 26, 27, and 30-46

Document 1 describes the compounds represented by General Formula (I) that are useful as an interferon inducing agent, antiviral agent, anticancer agent, etc., and as concrete compounds it describes those in which R¹ is an alkyl group substituted by a lower alkoxy carbonyl group (Examples 39, 40, 45 and 62).

Document 2 describes compounds represented by General Formula (I) that have chemical structures similar to those of the compounds described in document 1 and have similar activity. Document 2 lists an alkoxy carbonyl group and also an alkyl carbamoyl group as R² (equivalent to R¹ of document 1).

Because it is common practice in the technical field involving chemicals used as drugs for persons skilled in the art to modify terminal substituents and obtain compounds that are optimal or preferable as drugs, this examination finds that persons skilled in the art can easily conceive of using an alkenyl group, etc., in place of the alkyl group moiety and replacing the oxycarbonyl group with a carbamoyl group, etc., in the compounds described in document 1.

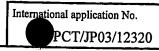
Furthermore, this examination finds that the compounds of claims 14 and 15 of this application do not provide any particular outstanding effect in comparison with the compounds described in document 1.

As a result, based on the descriptions in documents 1 and 2, the inventions of claims 14, 15, 26, 27, and 30-46 lack an inventive step.

(Continued)

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Supplemental Box

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In case the space in any of the preceding boxes is not sufficient. Continuation of $\mathbf{Box}\ \mathbf{V}$:

III. Claims 5-7 and 10

Neither document 1 nor document 2 describes or suggests that when compounds in which the benzyl group at position 9 is replaced by a substituent equivalent to $-Y^2-Q^2$ in the present application are applied topically, they are quickly metabolized and converted to substances with low activity, and this matter is not obvious to persons skilled in the art.

As a result, the inventions of claims 5-7 and 10 of this application are novel and involve an inventive step with respect to documents 1 and 2.

IV. Claims 12, 13, 16-25, 28 and 29

Documents 1-4 neither describe nor suggest the compounds of claims 12, 13, and 16-25 of this application, and these compounds cannot easily be conceived of by persons skilled in the art.

As a result, the inventions of claims 12, 13, 16-25, 28, and 29 of this application are novel and involve an inventive step with respect to documents 1 and 2.

Form PCT/IPEA/409 (Supplemental Box) (January 2004)